





## REPORT OF COMMITTEE ON TEACHING OF HYGIENE AND GRANTING OF DIPLOMA OF DOCTOR OF PUBLIC HEALTH.

Your committee during the past year has studied the question of what may be considered the normal educational standards of hygiene, and wishes here to acknowledge the valuable assistance received from persons not on the committee, in this matter. It was considered that the subject should be classified under the following divisions:

1. Hygiene instruction in connection with medical schools and universities.
2. The higher hygiene instruction for diplomas or certificates of hygiene, such as is required by health officers, sanitary engineers, and other sanitary experts as chemists and bacteriologists.
3. Hygiene instruction to school teachers and school children.
4. Hygiene instruction in veterinary schools.
5. Hygiene instruction to the sanitary inspectors, inspectors of food, etc.
6. Regulations of hygiene instruction by boards of regents.

The reports received from different members of the committee have been submitted and are appended hereto, and the following is a summary of the conclusions arrived at, based upon these as well as other correspondence arising from them:

### HYGIENE INSTRUCTION IN MEDICAL SCHOOLS AND UNIVERSITIES.

The average medical student requires sufficient compulsory instruction to fit him for such hygienic work as arises directly out of his practice and which will enable him to co-operate intelligently with health boards. This calls for a general theoretical grounding in all branches of hygiene such as might be covered in a course of forty fifty lectures and demonstrations, together with some elementary laboratory work in hygiene.

1. It would be advisable that some practical training in sanitation such as disinfection, house inspection, etc., be given either as an optional or compulsory course.
2. A more advanced optional course should be given, optional to students who wish to study the subject more deeply.
3. A diploma course, open to post-graduates, should be available for those who wish to become specialists in hygiene (see also under Section 2 of this report).
4. In addition to the above, a short series of elementary lectures on personal hygiene, forming a

within the scope of the public, should be available for all students in the various faculties. 5. In connection with the course in sanitary engineering, architecture, etc., adequate arrangement should be made for instruction in hygiene and proper examination of the candidate.

#### DIPLOMAS IN PUBLIC HEALTH FOR MEDICAL HEALTH OFFICERS.

These require a special course and special examination. On the whole your committee considers that the English diploma of public health, is one suitable for adoption as a standard. This requires six months' scientific training in hygiene, including laboratory instruction in sanitary chemistry, bacteriology and the study of preventable diseases, and six months' practical training as assistant in the regular duties of medical health officer. Of these two courses only three months may be concurrent, and the candidate cannot pass any part of the examination until one full year has elapsed since his admission to the practice of medicine. The instruction in addition to the ordinary sanitary matters must comprise sanitary law, sanitary administration, and the study of hospital treatment of infectious diseases.

It will be noticed that the above qualifications are limited to medical men, and especially restricting the minimum requirements of the medical health officer. It is thus advisable that the sanitary bodies should make such arrangements as will enable persons holding these diplomas to have some advantage in securing or holding appointments. Possibly the holding of an appointment could be made conditional upon securing the diploma within a specified time.

It would seem advisable to have a somewhat higher qualification than the D. P. H., which might be obtained by further special study. This would correspond to the D. S. C. in hygiene, or to the doctor degree in hygiene, as given by the Scotch and some of the English universities. A course of this kind would call for at least two years post-graduate study, with special proficiency in some branch of laboratory work in addition to the general knowledge acquired by the D. P. H. and, at least for the doctor's degree, the presentation of a thesis representing original research.

Those parts of the course dealing with practical sanitation are, of course, not called for in the case of those holding appointments as medical health officers. Arrangements of the course should be such as to enable persons engaged in sanitary work to take them piecemeal who are unable to devote their entire time to the work.

It would seem advisable that similar provision be made for diplomas in veterinary hygiene and sanitary engineering, as far as possible, and the work of the laboratory experts in chemistry and bacteriology. In

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the case of these special experts, however, it would seem more appropriate to require that the standard be particularly higher in the special branch in question than that the standard should be raised diffusely in all the branches of hygiene. The D. P. H. standard would seem to form a good groundwork from which specialization would be carried on in any branch.

A sanitary expert engineer should have same general knowledge of sanitary chemistry and bacteriology that would be required of the medical health officer, but would not require special instruction in preventive medicine and infectious disease. The sanitary chemist or bacteriologist would require at least two years' special training in his line of work with a certificate of a year's service as assistant in the special line of work and the passing of a special examination.

The examinations for the D. P. H., as specified, must cover at least four days and be written and practical, including both laboratory and outdoor sanitary work. The requirements of a sanitary analyst would be those in the main which are now required by the food and drug experts; it would be necessary that a knowledge of bacteriology as well as chemistry be required in each case. In several states these qualifications already exist. The highest standard is that of Austria and France, where four years' special chemical training as students, and one year as assistant, is demanded before a certificate can be given. Part of this course is included in the ordinary college curriculum.

#### SCHOOL TEACHERS AND SCHOOL CHILDREN.

The qualifications established by the English school board for the teachers by which a certificate is conferred as a result of attending a course of about thirty or forty lectures on physiology and hygiene, especially adapted to their requirements, is one which seems fairly satisfactory. Your committee considers that such a course should either be made compulsory for all teachers or that special certificates be furnished those who take it. We cannot but strongly condemn the present prejudice which has led to the exaggerated exaltation of the study of the effects of alcohol and narcotics in this course, as displacing subjects which are of more importance. We consider that this topic in a forty lecture course could be dealt with amply in one or at most two of the lectures, and would strongly urge that the course in hygiene for school teachers should be directed rather to disseminating the knowledge of the laws of health than to the spread of temperance propaganda and statistics which can better be dealt with independently. A teacher who has obtained a certificate in the above mentioned course might be considered as competent to give elemen-

itary instruction in hygiene to school children where no better arrangement can be made, and we think that hygiene and elementary physiology should be made part of the knowledge of every child. It is also recommended that a more advanced course in hygiene should be given to all students in universities and colleges, to include not only personal hygiene, but such instruction in Municipal, State and National Sanitation as would give them an intelligent and sympathetic interest in all measures relating to public health.

We would emphasize the view that the main object of instruction to teachers is to help them in carrying out intelligently such measures as may be necessary for the pupils under their charge, but that the supervision of the health of schools is much better entrusted to the school physician or medical school inspector who should be attached to all large schools. The qualifications for a medical school officer has not so far been formulated, but a special knowledge of school hygiene and the diagnosis of infectious diseases should be made one of the conditions for this position where the holder does not possess some other sanitary certificate covering the ground. We think it would be preferable, if feasible, that persons occupying positions of this kind have a D. P. H. certificate. The medical officer should be specially trained in making examinations as to the sight and physical condition of the pupils and regulate such gymnastic exercises appropriate to their case.

#### THE REQUIREMENTS FOR VETERINARY SCHOOLS.

These should be analogous to those of medical schools, and in our opinion a diploma course in veterinary hygiene should be adopted. The special requirements indicated in Dr. Ravenel's report appear to be sound. The matter of regulation of veterinary instruction is one which is closely allied to that of the hygiene of domestic animals and should be dealt with thoroughly in agricultural colleges.

#### EXAMINATIONS AND CERTIFICATES FOR SANITARY INSPECTORS AND INSPECTORS OF FOOD, ETC.

For this the requirements of the British Sanitary Institute appear to be specially well adapted and are quite feasible. These require a sufficient elementary knowledge of reading, writing, arithmetic, as well as general education, in order to allow the candidate to go up for the examinations. The course generally given covers from twenty to forty lectures with practical demonstrations, and the examinations are of a thoroughly practical character. The system followed in England of separating the inspector of nuisances from food inspectors is not called for on sanitary grounds, but is owing to the fact that these

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REGULATIONS OF HYGIENE BY BOARDS OF REGENTS.

Your committee would strongly urge that the health boards as far as possible insist upon only such men receiving the title of sanitary inspector as have earned it by passing the examination, to give the necessary encouragement to induce people to obtain these qualifications and by classing those who have not taken them as unskilled, making a distinction in their official titles.

Your committee would also suggest that such portions of this report as may be adopted by the Association should be submitted to those interested for their criticism and the effort made to secure their co-operation; and if a distinction is made between the minimum amount to be made compulsory everywhere and the normal standard which might be optional in some cases, we think that the matter can be practically tested without very serious delay.

We have appended to this report a short schedule showing the extent of the requirements in each of the above branches, as well as memoranda received from individual members of the committee.

(Signed) W. T. SEDGWICK, Chairman.

A. C. ABBOTT.

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SEVERANCE BURRAGE.

WYATT JOHNSTON, Secretary.







